# ABSTRACT

A method and apparatus for generating a preamble sequence in an orthogonal frequency division multiplexing (OFDM) communication system having m subcarriers in a frequency domain. The method comprises generating a preamble sequence of length n that is mapped to n subcarriers on a one-to-one basis, where n is less than m; and assigning components constituting the preamble sequence to the n subcarriers among the m subcarriers on a one-to-one mapping basis, assigning null data to the remaining subcarriers excluding the n subcarriers from the m subcarriers, and then IFFT (Inverse Fast Fourier Transform)-transforming the assigned result into time-domain data.